APS COLLOQUIUM SERIES



Speaker: Sidney Nagel

The James Franck Institute and The

University of Chicago

Sidney Nagel is the Louis Block Professor of Physics at The University of Chicago, where he is also Associate Dean of the Division of Physical Sciences and the College. He has made important contributions to our understanding of the behavior of glasses, liquids, and granular materials and is the most recent recipient of the Oliver E. Buckley prize of the American Physical Society for Condensed Matter Physics (1999), and several other honors, including the 1996 Quantrell Award for Excellence in Undergraduate Teaching. He is a Fellow of the American Academy of Arts and Sciences, the American Physical Society, and the American Association for the Advancement of Science.

Title: Physics at the Breakfast Table

Many complex phenomena are so familiar that we forget to ask whether or not they are understood. In this lecture, I will discuss several familiar cases of effects that are so ubiquitous that we hardly realize that they defy our normal intuition about why they happen. The examples of poorly understood classical physics that I will choose can all be viewed at a breakfast table: the anomalous flow of granular material, the long messy tendrills left by honey spooned from one dish to another and the pesky rings deposited by spilled coffee on a table after the liquid evaporates. These are all non-linear hydrodynamic phenomena which not only are of technological importance but can also lead the inquisitive into new realms of physics.

DATE: Wednesday, September 8, 1999

TIME: 4:15 p.m.

LOCATION: 402 Auditorium